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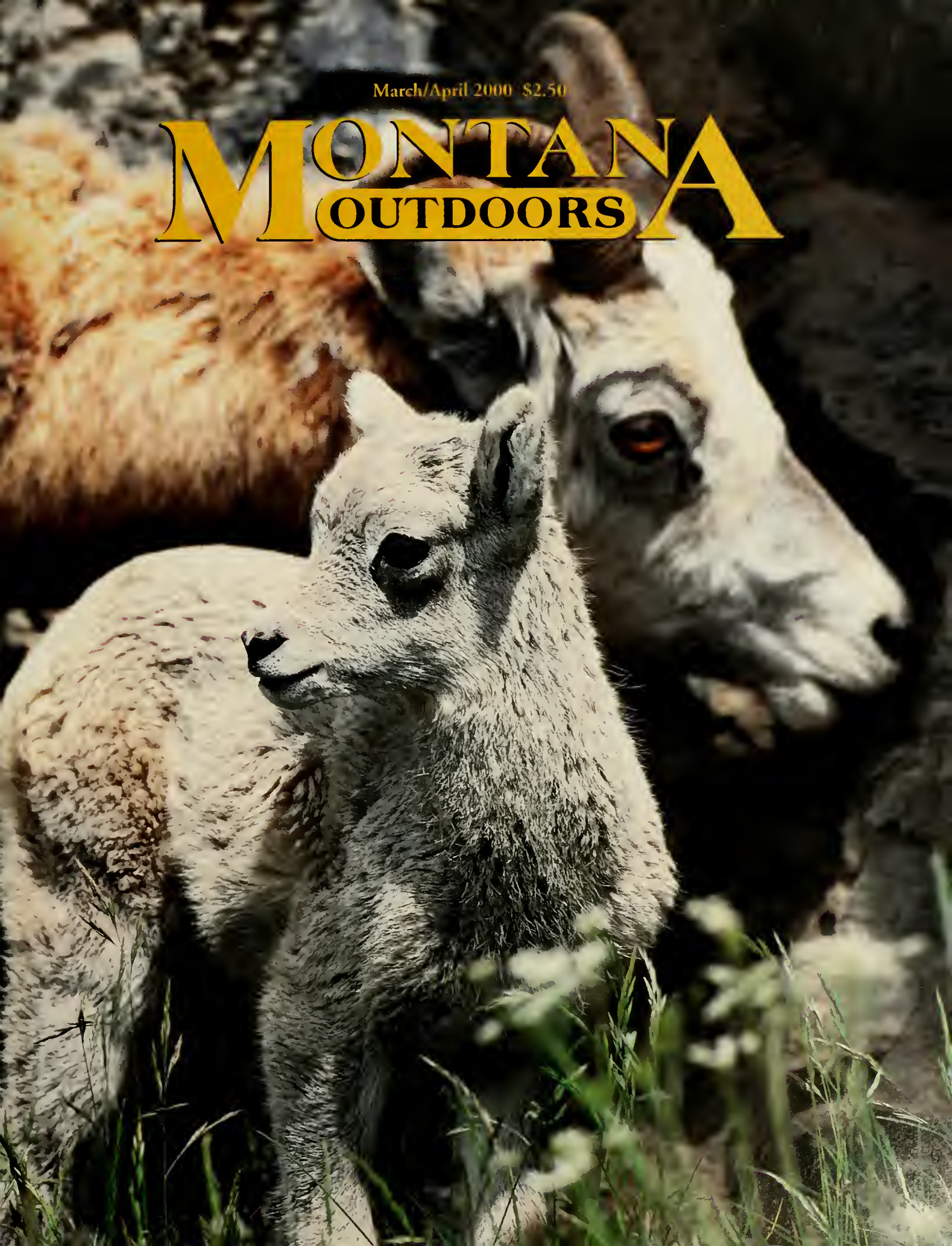
MONTANA OUTDOORS



MILO BURCHAM

To foster healthy sage grouse populations, FWP has protected more than 300,000 acres of sagebrush habitat over the past decade (page 7).

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Montana Fish, Wildlife & Parks

1999 ANNUAL REPORT

MILO BURCHAM

Today, while we haggle over how to equitably distribute the bounty of wild game and fish resulting from 100 years of successful conservation, a new reality has us in its grip.

Can we do for other species what we have done for animals we hunt and fish? Can we maintain our open spaces and preserve important wild places? Are the historic and cultural remnants of this past century going to be preserved through the next one?

We can not wait too long for the answers. Hunters, anglers and park users have and can continue to be expected to pay their fair share. But, who will support this new work? Montanans will have to continue to wrestle with the question of how to broaden the funding base for these important endeavors.

Part of the answer is in the creation of the new Fish, Wildlife and Parks Foundation, launched in December 1999. It will build an endowment of individual and corporate donations and gifts to fund programs that will conserve wild places, restore imperiled species, maintain access, protect unique cultural and historic parks and educate kids about the wonders of our world.

Another part of the answer may be the "Conservation and Reinvestment Act" Congress is considering. This bill would send millions of federal dollars to state parks and wildlife programs by redirecting existing tax revenue.

With these two options on the horizon, there has never been a greater opportunity for people to make a difference in conservation. It is time for this generation to shape our legacy for the next century. When wildlife calls, who will answer?

Pat Graham

Patrick J. Graham
Director—Montana Fish, Wildlife & Parks

In striving to reach our goals we...

...provide quality

Opportunities

Opportunities to fish, hunt and hike grew in 1999 as FWP improved state parks, upgraded trails and fishing access sites—and increased hunter access to public and private lands.

HUNTERS ENJOYED OVER 250,000 DAYS OF public hunting on 7.3 million acres of land in 1999 through the successful Block Management Program. Even with some $3 million in annual funding from the sale of licenses to nonresident hunting clients of outfitters, the program is unable to sign up many interested landowners. Resident hunters also show interest in helping to fund more access to private and public lands. The Private Land/Public Wildlife Advisory Council, a 15-member citizen's group, oversees the program and makes recommendations on funding to the governor and the legislature. The Block Management Working Group, a committee of landowners, hunters, and FWP staff, advises on day-to-day issues.

THE APPROACH TO MONITORING DEER POPULATIONS and setting hunting regulations is becoming more consistent and comprehensive. Wildlife biologists across the state are working together to refine the deer harvest management program—for example, by monitoring a total of 79 areas to continuously collect population data. Over time, this work will improve FWP's ability to detect measurable changes in deer numbers and to more precisely assess the impact of hunting and other factors on deer populations.

MONTANA'S FAMILY FISHING PROGRAM, after three years of educational fishing clinics and events, is thriving. The "Hooked on Fishing, Not on Drugs" program now involves 100 classrooms and 2,300 Montana students. Over 600 teachers have been trained in aquatic education and will potentially reach 15,725 students annually. Through the Montana Angling Youth—MAY—Club, 4,000 youngsters receive a newsletter with information on fishing in Montana. In addition, the Family Fishing Program continues to create more fishing opportunities in urban areas.

About 312 fishing access sites in the state welcome anglers and campers alike. These sites, funded by angler license fees, benefited from nearly $1 million in upgrades and maintenance in 1999. Campers will see a new $10 camping fee at about 10 percent of these sites, if they don't have valid fishing licenses. The standard camping fee at these sites is $5 for those with a fishing license.

PARKS AND TRAILS...

Ulm Pishkun State Park's new visitor center helps tell the ancient story of survival, culture, and land that unfolded at this buffalo jump over the past 1,500 years. FWP is working with the Department of Natural Resources and Conservation on a land trade to bring the remainder of the buffalo jump and key surrounding property into FWP management. Tribal leaders, historians, neighbors and community organizations assisted in creating this inviting center to keep the stories of Ulm Pishkun alive.

Makoshika State Park near Glendive is another precious paleontological and archeological window on the past. FWP is protecting this unusual site fot future generations to enjoy and study by strengthening land-use agreements. With $100,000 in state park fees appropriated by the 1999 Montana State Legislature, FWP plans to purchase private mineral holdings within the park.

Recreational trails across the state received a $486,000 facelift as private trail clubs and public agencies completed projects funded by the Federal Recreational Trails Grant Program administered by FWP. Groups matched at least 20 percent of project costs with dollars from local funding sources and usually contributed their time and labor.

JOHN LAMBING

... maintaining and enhancing
the health
of Montana's native species and habitat

DALE SPARLIN

TWO SUBSPECIES OF CUTTHROAT TROUT—WESTSLOPE AND YELLOWSTONE— received tremendous attention in 1999, as did the fluvial Arctic grayling and the bull trout. Populations of these important native fish have declined, in some places drastically, in the past 100 years due to habitat loss, competition and hybridization with introduced nonnative trout species, water diversions, and disease. Biologists are hard at work gathering information on the distribution, population sizes, genetic purity, and habitat requirements of these native fish. Planners crafted conservation agreements uniting state and federal agencies, private landowners, conservation groups, and tribal representatives to maintain, and in some cases reestablish, these native fish in traditional waters.

Montana's fish hatchery facilities are being upgraded to protect hatchery fish from the potential infection of whirling disease. Hatcheries in Great Falls, Lewistown, and Bridger saw improvements in 1999 that will protect the hatchery water supplies and enhance water quality. The project draws from both state and federal funds. Montana hatcheries produce over 43 million fish a year—including native Yellowstone cutthroat trout, westslope cutthroat trout, and walleye.

THE BLACK-TAILED PRAIRIE DOG is not threatened with extinction in Montana, but populations have declined throughout its 11-state range. Montana has at least 1,433 prairie dog colonies occupying a minimum of 76,139 acres. To address prairie dog concerns, FWP joined in an 11-state conservation plan to make the case to the U.S. Fish and Wildlife Service for state management of the species.

RICHARD MOUSET

FWP's Criminal Investigation Section targets commercial poachers. Time-tested methods combined with advanced technology, including DNA matching, sharpens FWP's edge in investigations. In the past two years, FWP has cracked down on seven separate organized commercial and interstate poaching opetations, recovering wildlife parts and leading to severe fines and other penalties. Recent legislation increased restitution for unlawfully taking a trophy animal to a range of $2,000 to $30,000. Fines for repeat violations of hunting laws have increased too.

WHIRLING DISEASE IN FISH AND CHRONIC WASTING DISEASE in elk and deer are health issues FWP continuously collects data on and monitors. The whirling disease parasite infects fish and has been found in varying degrees in 83 of the more than 350 sites sampled. FWP studies show when daily mean water temperatures fall below 45° or exceed 63° infection levels are near zero. So, for example, trout who live in very cold streams may not experience severe disease. CWD, or chronic wasting disease, is an illness that causes weight loss and other symptoms resulting in death in elk and deer. In 1999, officials confirmed an elk in a game farm herd near Philipsburg died of chronic wasting disease and the herd was eliminated. CWD has not been found in Montana's wild herds and FWP continues rigorous observation and testing of wild deer and elk.

MIKE BARLOW

DONALD M. JONES

PRESERVING AND RESTORING NATIVE HABITAT...

JOHN N. LORD

In 1987, the Montana Legislature set aside a portion of hunting license revenues to protect seriously threatened habitat, mainly through conservation easements. Since then, about 176,000 acres of critical wildlife habitat have been protected at a cost of $26 million. In related work, 830 short-term contracts protect 438,702 acres of upland bird habitat at a cost of $10.5 million. FWP uses other funds to help preserve additional fish, wildlife, parks, historic, and cultural resources. In total, FWP holds perpetual land interests on about 400,000 acres and short-term contracts on 550,000 acres. In 1999, FWP completed reviews of all conservation easements to ensure the terms are being met as intended.

The Future Fisheries Improvement Program has funded $3.8 million in habitat improvements for wild and native fish in three years, including 49 projects recommended in 1999 by the program's citizen review panel. Projects may, for example, improve water quality, restore river or stream channels, or make diversion dams more fish-friendly. All program funds come from the sale of Montana fishing licenses. Fish populations have increased in about 75 percent of projects monitored so far.

Montana Fish, Wildlife & Parks

VISION FOR THE 21ST CENTURY—

Montana Fish, Wildlife & Parks will provide the leadership necessary to create a commitment in the hearts and minds of Montanans to work together in partnership to sustain the diverse fish, wildlife, and parks resources and recreational opportunities essential to a high quality of life for Montanans and our guests.

DEPARTMENT GOALS—

Create an efficient and effective work environment where priorities are clear and employees are accountable, valued, and recognized for their contributions.

Provide quality opportunities for public appreciation and enjoyment of fish, wildlife, and parks resources.

Maintain and enhance the health of Montana's natural environment and the vitality of our fish, wildlife, cultural, and historic resources.

Emphasize education, communication, and responsible behavior to afford Montanans the opportunity to better understand and participate in the decision-making processes that sustain our natural, recreational, and cultural resources for future generations.

MONTANA FISH, WILDLIFE & PARKS COMMISSION—

STAN MEYER, *Chairman*, Great Falls

DAVID W. SIMPSON, *Vice Chairman*, Hardin

DARLYNE DASCHER, Fort Peck

CHARLES R. DECKER, Libby

TIM MULLIGAN, Whitehall

fwp.state.mt.us
is FWP's award-winning home on the world-wide web. For a colorful look at Montana's latest hunting, fishing, wildlife, and parks news, please come visit us.

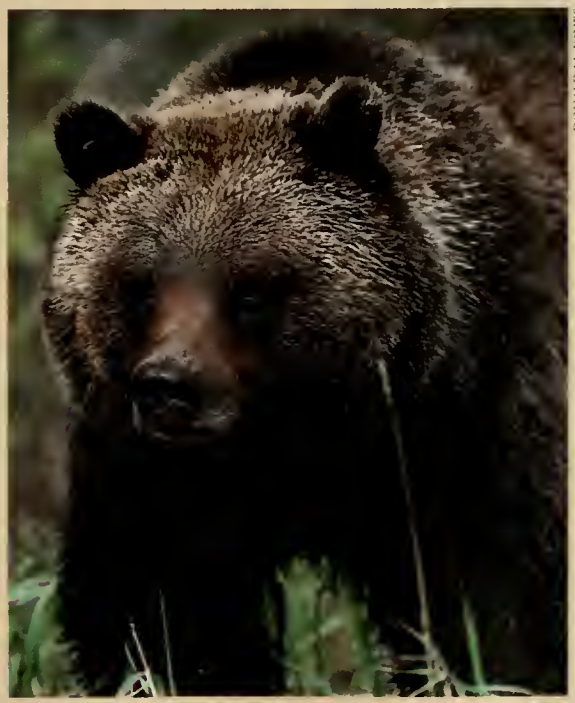
...emphasizing education engagement *and* partnerships

An active, informed public is critical to the protection of Montana's fish, wildlife, and parks resources. A group of communication specialists writes and produces press releases, public service announcements, Montana Outdoors *magazine articles, video productions, and the FWP website. Hunter Education, Montana's Family Fishing Program, and other initiatives aim to increase people's knowledge, skills, and safety. Beyond this work, every FWP employee is charged with informing, engaging, and partnering with the public.*

FWP bear specialists and the Wind River Bear Institute have saved about 16 grizzly bear lives over the past two years by conditioning the bears to stay out of human territory. This successful work uses trained Karelian bear dogs and rubber bullets and noise to change bad bear behavior when and where it occurs. At the same time, residents learn one-on-one and in area-wide information campaigns about bear attractants and how to eliminate them. This work has measurably reduced the need to relocate or destroy bears.

Recommendations by a 16-member Hunter Behavior Advisory Council appointed by FWP contributed to recent legislation creating a continuing hunter education program for adults and a mandatory course for convicted violators of fish and game laws. Also in 1999, 1,435 hunter and bow hunter instructors taught 9,000 students ages 12 and older.

All hunting on private property now requires landowner permission by law. Prior to this, only big game hunting required landowner permission, unless the land was posted. To assist landowners and hunters with this change, FWP developed a directory of land ownership maps and pocket-sized "access courtesy cards." FWP is also working with other agencies to improve signing of legally accessible public lands.



DONALD M. JONES

The 1,504 volunteers in Montana's state parks in 1999 provided 47,326 hours of time and saved the equivalent of 23 full-time employee positions. Interns contributed 12,560 hours of work or the equivalent of six full-time employee positions for the year.

FWP DIVISIONS

PARKS:

The Parks Division is responsible for development, maintenance, and operation of all state parks and affiliated sites with an objective of providing diverse recreational opportunities while preserving important historical and cultural resources within Montana.

WILDLIFE:

The Wildlife Division is responsible for managing all species of wildlife including big game, threatened and endangered species, upland game birds and nongame birds, and waterfowl in the state.

FISHERIES:

The Fisheries Division is responsible for the management and perpetuation of Montana's fish and other aquatic resources.

CONSERVATION EDUCATION:

The Conservation Education Division acts as a clearinghouse for information on FWP activities and news items to the media and conducts a variety of educational and recreation-safety programs.

ENFORCEMENT:

The Enforcement Division is responsible for enforcing all the fish and game laws of Montana, FWP rules, and FWP Commission regulations. Division personnel also enforce state boating and snowmobile rules and state park regulations, as well as private property laws and hunting and fishing regulations.

FIELD SERVICES:

The Field Services Division is responsible for FWP's lands program and construction projects, as well as its Block Management (public hunting access) and landowner-hunter relations programs.

ADMINISTRATION & FINANCE:

The Helena-based Director's Office staff makes major policy and administrative decisions. Regional supervisors handle on-the-ground implementation of policies and programs. The Administration and Finance Division is responsible for budgeting, accounting, purchasing, personnel, data processing, and administration of FWP's licensing functions.

REVENUE SOURCES 2000

FWP is funded primarily by user fees. Funding sources include:

HUNTING AND FISHING LICENSES

This includes all license sales revenue, interest earnings, and other miscellaneous revenue. Nonresident sales account for nearly two-thirds of FWP's total license revenue.

FEDERAL REVENUE

FWP receives federal funds: to aid in fish and wildlife restoration efforts; for parks development and maintenance; and for boating safety, education, and regulation. Nearly $9.7 million apportioned to Montana is derived from an excise tax on sporting arms and ammunition, handguns, and certain archery equipment—as well as from an excise tax on fishing equipment and electric trolling motors, a portion of the federal-fuels tax, and import duties on fishing tackle and pleasure boats.

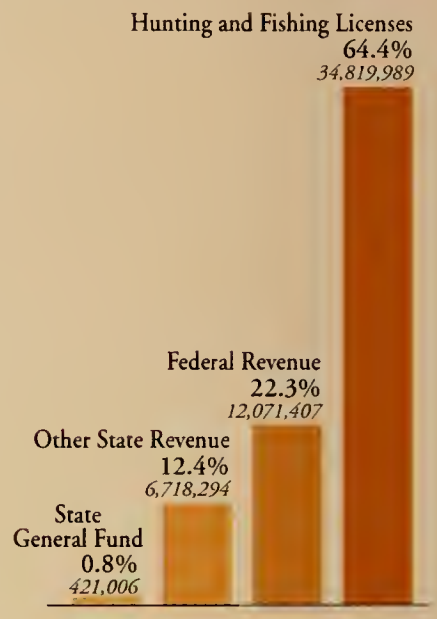
OTHER STATE REVENUE

Other state revenue sources include: fees for state park use; a portion of the state's lodging facilities use tax; a small percentage of the state fuel tax; interest earnings from coal severance tax receipts; and other miscellaneous revenue sources.

STATE GENERAL FUND

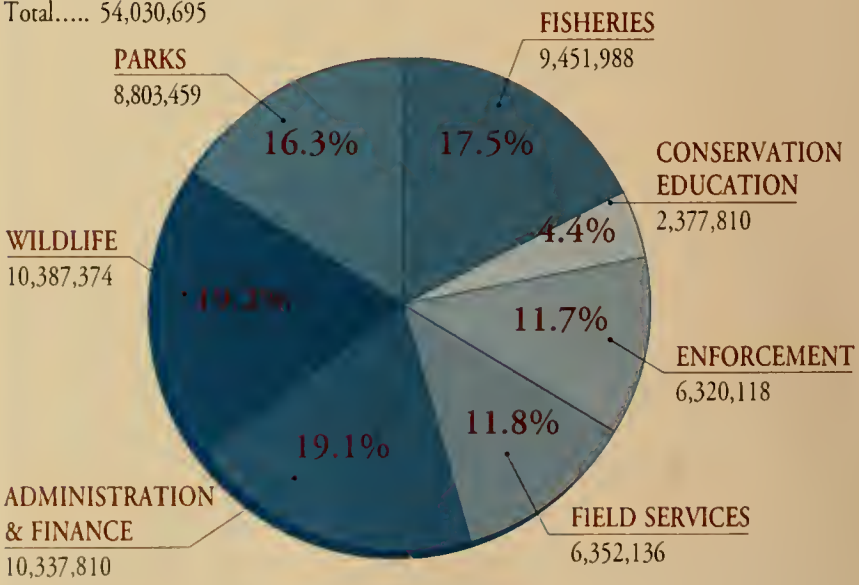
State tax dollars. Less than 1 percent of FWP's total budget comes from the general fund. About 75 percent of this funding goes to the Parks Division.

TOTAL REVENUE: 54,030,695



PLANNED EXPENDITURES 2000

FWP TOTAL:
Operating.....45,846,870
Capital..... 8,183,825
Total..... 54,030,695



FWP SPENDS ITS MONEY TWO WAYS:

Operations for day-to-day management of fish, wildlife, and parks resources.
Capital for major repair and maintenance of FWP properties, for renovation and construction of facilities, and to protect and enhance critical habitats.

by Bruce Auchly

There are three topics that should never be brought up at any Montana dinner party: Which side of the Continental Divide is best, who will win the next Cat-Griz football game, and endangered species. No consensus is possible, certainly on the first two. On endangered species, however, the opposing camps in an upcoming debate may have more in common than one would suspect.

Forget the grizzly bear and prairie dog for a moment. That new storm cloud appearing on Montana's endangered species horizon is the sage grouse. Yes, the sage grouse.

A native prairie bird the size of a small turkey, the sage grouse once waddled over 16 western states and three Canadian provinces. It's still found in 11 states and Alberta and Saskatchewan, but the bird's stronghold has been reduced to four western states: Montana, Wyoming, Idaho, and Oregon. On that everyone agrees.

Agreement is harder to find on whether Montana's population deserves listing under the federal Endangered Species Act. "We just don't feel the bird and its habitat are about to go out of the picture in Montana," says John McCarthy, special projects coordinator with the Wildlife Division of Montana Fish, Wildlife & Parks (FWP).

Like most wildlife biologists, McCarthy picks his words carefully. He'd prefer to let statistics do the talking. He's dedicated to the job.

Weathering the Storm

Will Montana's sage grouse hunting season be the next casualty in the endangered species wars?

SAM M. ESPELAND

Sage grouse leks—traditional areas where birds gather each spring to carry out elaborate courtship rituals—may host a dozen or so birds to upwards of 100.

Based on data collected a year ago, McCarthy guesses Montana had at least 100,000 sage grouse last fall, although he's quick to admit no one will ever know exactly how many birds live here. Whatever the number, Montana has enough to support a hunting season. In 1999, the sage grouse season ran from September 1 to November 1. The daily bag limit was two, with a possession limit of six. Based on last year's data, FWP biologists support a higher daily limit.

Weighing in on the other side is a coalition of groups that claim the sage grouse is in big trouble, and it's time to act. One such group is the Biodiversity Legal Foundation (BLF) of Boulder, Colorado. "It is biologically threatened throughout its historic range," says Jasper Carlton, BLF executive director. "That's good enough for listing under the Endangered Species Act, in my opinion."

Carlton is a man of few pauses. Ask him a question, and he'll give you an hour. He's dedicated to his mission.

Listing the bird throughout the West would stop hunting, Carlton says, even if Montana has a self-sustaining, huntable population. He adds that he is not anti-hunting.

When the U.S. Fish and Wildlife Service (FWS) receives a petition to declare a species threatened or endangered, the federal agency has to weigh five factors:

- Present or future threats to the species' habitat or range.
- Overuse for commercial, recreational, scientific, or educational purposes.
- Disease or predation.
- Inadequacy of existing regulatory mechanisms (such as hunting seasons).
- Other natural (e.g., drought) or human-made factors affecting the species' continued existence.

If any one of the five factors threatens the continued existence of a species, the agency may list it. However, depending on the need or perceived threat to the species, the FWS could say listing is warranted but precluded by other considerations. McCarthy does not believe any of the five factors threaten the long-term viability of Montana's sage grouse.

Carlton agrees that viable populations exist in the bird's four core states. "But that's out of sixteen states," he says.

McCarthy points out that rangewide listing would lump Montana with other states that have few or no sage grouse; the state would be unfairly penalized if the bird is listed.

"I don't have a simple solution," Carlton responds. "Some state is probably going to get the shaft a little bit."

That is one of the constant complaints about the Endangered Species Act. A state with a healthy population can get dragged into listing by other states that no longer sustain healthy populations of that species. In Montana, the grizzly bear—which is listed as threatened—is a case in point. Most Montana wildlife biologists say the state has a viable grizzly population but suffers because other western states do not.

So what is the status of the sage grouse in Montana? Good, McCarthy says. He bases his opinion on two sets of data: the number of breeding males on a small but representative number of spring mating grounds, called leks, and the number of birds that hunters kill each year. Some Montana leks have been surveyed since the 1950s; bird harvest records date back to 1958.

Before lek surveys and harvest records, there were just anecdotes and stories. Did sage grouse really "darken the sky," as more than one old-timer remembers? Maybe, maybe not. No scientific data exists from the first half of the century.

But most people feel there are probably fewer sage grouse in Montana than there were 100 years ago. The culprit, everyone concurs, is habitat loss. "Habitat degradation and habitat loss, agricultural and urban conversion," says Mark Salvo of the American Lands Alliance of Portland, Oregon. "We don't see that trend improving."

Salvo's organization is the leader of the pack in the sage grouse controversy. In January of 1999, American Lands hosted a conference in Boise, Idaho, on the sage grouse and later commissioned a status review of the species. Salvo won't say who is doing

the review. "He prefers to remain anonymous." The status review will be the backbone of any Endangered Species Act petition. Joining American Lands are 10 organizations listed on their web page *www.sagegrouse.org*.

Among game managers, there is a suspicion that the American Lands Alliance, the Biodiversity Legal Foundation, and its partners are using the sage grouse to further an agenda of removing cattle from public lands. It's a charge Salvo and Carlton vehemently deny.

"That's bull," Carlton says. "The Biodiversity Legal Foundation has never had that goal. We have no hidden agenda, never have. Ranchers say, 'You're going to ruin ranching.' The other side says, 'We will be able to get cows off public lands.' The two are equally false."

"That is not part of our agenda," Salvo agrees.

Both do admit they want grazing modified. Carlton says: "You cannot graze all the cows in the same place at the same time." And both state they are talking for their groups only.

The minutes from last year's Boise conference quote an individual from one of the partner organizations saying he wants "those bovine bulldozers" off public lands. It was neither Salvo nor Carlton, but it makes it harder to reach an accord on sage grouse.

Rather than wait for an Endangered Species Act petition to appear, FWP has taken two approaches to ensuring a healthy sage grouse population: habitat protection and hunting season management.

Between 1954 and 1987 nearly a million acres of rangeland were converted to cropland in the five Montana counties north of the Missouri River containing the most sage grouse habitat. Comparing harvest data from that period with rangeland conversion data accounts for 87 percent of the decline in sage grouse harvest.

Harvest data show the golden days for sage grouse hunters were the 1960s. In 1964, hunters took nearly 100,000 birds. It was a spike that was never repeated. Only five other times in the last 40 years has the harvest even gotten to 50,000, and three of those years were in the 1960s.

"It was a combination of factors," McCarthy says. "We had great habitat, more of it, and a lot more interest in sage grouse hunting."

From the bird's perspective, agricultural practices took a turn for the worse in the 1970s as farmers were urged to plant fencerow to fencerow. Heck, wipe out the fencerows. Where native prairie remained, the drought of the 1980s, some grazing practices, and the federal farm program made matters worse.

As their name implies, sage grouse need sagebrush. Adults eat the leaves. But the grasses and small plants under the sagebrush are important for nesting and for the insects found there, which young birds eat. Drought and continuous cattle grazing can kill or seriously reduce that important understory, McCarthy says.

Drought can't be helped. Cattle grazing can be managed. Through the Upland Game Bird Enhancement Program, FWP installs rest-rotation grazing systems in sage grouse habitat. "The effect is a healthy range, and you start getting woody cover back," he says.

Over the current biennium, FWP

SAM M. ESPELAND

SAM M. ESPELAND

DALE C. SPARTAS

Upper photos: *Hens make a nest by scratching out a shallow depression, usually beneath a sage bush, and lining it with dead grass. The average clutch consists of seven to nine eggs.* **Left:** *Biologists fear that if interest in sage grouse hunting continues to decline, the birds will lose an important constituency.*

will spend 51 percent of its $630,000 game bird budget on protecting sagebrush grasslands. Since 1989, FWP has protected 312,699 acres in 61 range management projects through the upland game bird program.

The low point for hunters arrived in the 1990s, when harvest averaged only about 8,500 birds annually. However, that's not necessarily due to lack of birds, McCarthy says. If declining harvests through the late 1980s and into the mid-1990s reflected a drop in the population, then the number of breeding male birds observed on the spring leks should have dropped, too. That didn't happen.

The lek statistics show more of a roller coaster ride, which is common for game birds. There was a peak in the early 1980s, another peak in the late 1980s, and spring surveys show a steady upward trend since 1993.

McCarthy has two theories explaining why the harvest declined: Hunting attitudes and sociology. Bird hunters became more interested in chasing pheasants than in pursuing Montana's native prairie grouse, the sharptail and sage grouse. "Pheasant hunting really took off," he says. Indeed, the pheasant harvest went from 54,231 in 1985 to 138,612 in 1995.

Sage grouse numbers dipped in the early 1990s due primarily to drought, causing some bird hunters to demand action. In response, the FWP Commission lowered bag and possession limits and shortened the season.

In 1994, when lek surveys indicated sage grouse populations were beginning to rebound, FWP biologists recommended raising the limit. But many hunters still had concerns, and the two-bird limit was retained.

McCarthy fears that if hunter interest continues to drop due to lack of opportunity, fewer hunters will acquire the firsthand knowledge that participation in the hunt brings. A constituency is vanishing. "We've got so few people hunting sage grouse now, we're losing people who are interested in them. Fewer residents are willing to drive to eastern Montana for three days of sage grouse and sharp-tailed grouse hunting."

Concerned with the coming endangered species storm and looking to bolster its statistical argument, FWP last year doubled the number of leks surveyed to 190. Biologists found 4,000 breeding males. A conservative estimate of the number of young birds produced from those leks would have been 27,000, McCarthy figures. That's based on observing 4,000 breeding males, an estimate of 1.6 females per male on the lek sites, and 2.6 juveniles per hen harvested. Throw in McCarthy's estimate that the 1999 surveys only covered 10 to 15 percent of the state's occupied sage grouse habitat, and the numbers are revealing. "The data would indicate that at least in the fall we're looking at well over 100,000 birds," McCarthy says.

That's not good enough for Jasper

When inflated, the male sage grouse's esophageal sacs resemble two rubber balls bouncing on the bird's chest.

Carlton, who figures Montana cannot be the last best place for sage grouse. "You're not going to be able to restore the northern sage grouse in one state," he says. "It has to be regionwide."

In central Montana lies Petroleum County. It's cattle country with some crops thrown in. The entire county has only 527 people by last count. That's slightly more than three square miles for each person. Populationwise, it's the smallest county in the state and the seventh smallest county in the nation.

The center of Petroleum County is carpeted with sagebrush. This is open country where buttes and hills rise in the distance, where a thin ribbon of willows traces an intermittent stream, where man-made ponds provide needed water for livestock and wildlife.

Up ahead, a couple of dozen sage grouse move through the sage, crossing two ruts left by countless pickup trucks. At two feet off the ground, the birds' heads bob among the tops of the sagebrush. Wary of the human visitors, the birds fly over a small rise. Walk to the top of the rise, and you find they have flown again, disappearing a few hundred yards ahead.

"We've still got over five million acres of sagebrush grassland in the state," McCarthy says. Approximately 60 percent of that area is currently occupied by sage grouse. "We don't need to *restore* them. We need to conserve them and manage their habitat."

Whether Montana can keep its sage grouse population off the endangered species list depends on the extent to which the two sides can agree. McCarthy has his concerns: "We're kind of sitting in an area that these folks don't think exists." ■

MIKE BURCHAM

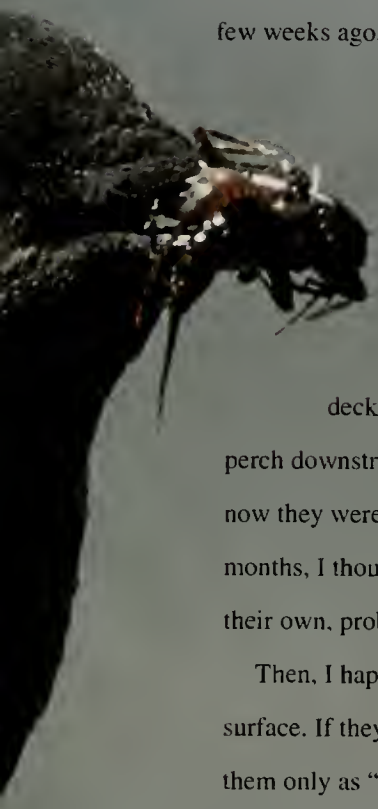
Two males square off to resolve ownership of a preferred mating territory within the lek.

BRET HICKEN

Natural Parenting

story by Sam Curtis
photos by Donald M. Jones

water ouzel



My wife, Linda, and I and two of our three children live in a log house that Linda and I built by a stream at the edge of the forest. A footbridge over the creek provides access to our cars. As I crossed that bridge a few weeks ago, I found myself preoccupied with thoughts of our kids.

Linda had just left the house with Molly, 15, to go to Driver's Education and then to the grocery store for food. I was on my way with Will, 9, to his reading enrichment class. And, forever a concerned parent, I was also thinking of Patrick, 18, who has "left the nest" to make it on his own in Seattle.

As I walked across the bridge, however, I was distracted by other kids. Water ouzel fledglings were cheeping from the mossy nest their parents had built on a ledge below the bridge decking. I could see and hear mom, or maybe it was dad, dipping and trilling reassurances from a rocky perch downstream. The ouzel parents had provided a constant diet of bugs and nymphs to their kids for weeks, and now they were about to start them on Flyer's Education so the kids could leave their nest. It had only been a few months, I thought, since the almost-helpless birds broke out of their shells, and they were already about to go off on their own, probably never to see their parents again.

Then, I happened to glance down into shallow water near the bank where a school of trout fry rippled the surface. If they ventured out into deeper water, I knew they might meet their mother or father who would recognize them only as "fast food" and scarf them down for dinner. Different parents, different approaches.

Suddenly, standing there on the bridge with Will telling me to hurry up or he'd be late for class, I was struck by the vast diversity of parenting styles that somehow all seem to work for the many different animals of Montana and the world. Looked at as a whole, natural parenting seems like a haphazard mix of hit-or-miss, trial-and-error techniques that have more to do with the kingdom of chaos than planned parenthood. But there is a plan behind these diverse ways of parenting, a plan called natural selection.

As Susan Allport writes in her fascinating book, *A Natural History of Parenting* (Harmony Books, 1997): "Animals didn't think through their [parenting] options in deciding how to behave. Natural selection did the thinking for them. Individuals with one particular set of [parenting] behaviors wound up with more copies of their genes in subsequent generations."

In other words, at the root of each species' parenting style is the equation: style = the set of parenting behaviors that results in the survival to maturity of the most offspring. And the offspring, of course, bear the parents' own genetic imprint.

But style is also shaped by a parent's ability, or lack of ability, to give care. There are many parenting tasks some animals are unable to perform no matter how helpful they might be for their kids. As a result, animals that are unable to provide much parental care tend to have lots of offspring to ensure that a few will survive. And animals that can provide a large degree of parental care have only a few children, but many of them make it to maturity.

Insects, for example, are cold-blooded, and therefore unable to incubate their eggs. They are also relatively small, so most of them cannot defend their eggs or newborns against larger predators, like birds. Consequently, an insect's parenting style may not go much beyond laying lots of eggs and perhaps supplying the eggs with a few spiders and flies the parents have paralyzed so there's something fresh for their offspring to eat when they hatch and find their parents long gone.

Fish are also cold-blooded, but because they have an internal skeleton they grow larger than insects. And although they can't incubate their eggs, they can defend them. So, many fish, including trout, remain near their deposited eggs for days, even weeks, to drive off predators. Once the eggs hatch, however, trout parents have no way of identifying the fry as their own. So, mom or dad may eat their own kids as quickly as the next fry.

Once we get into the realm of warm-blooded animals, parenting styles get a bit more dedicated, and the number of eggs produced by the female and fertilized by the male become fewer. Unlike cold-blooded animals, birds are able to incubate their eggs with the warmth of their own bodies. They are also capable of feeding their young. The mom and dad water ouzel, for example, were run ragged ferrying edible goodies to their four kids, who were always cheeping for more food.

Young Canada geese (above) emerge from the egg covered with down and with their eyes open, allowing them to quickly leave the nest and move to safer surroundings. Tree-nesting birds like the calliope hummingbird (at right) are typically less precocious—they require constant care and feeding by their parents.

Mammals, however, are the premier parental care providers, at least in terms of their built-in capabilities. Consider the white-tailed deer. The doe incubates her fertilized eggs in her uterus for seven months, making her a captive parent for at least that period of time, as long as her pregnancy progresses normally. When she gives birth to her live fawns, usually two, they are hungry. And, mom, being a mammal, comes equipped with mammary glands

that predispose her to an even longer period of parenting, unless she refuses to feed her own kids.

Rejection is usually not part of the parenting scenario, since the female sex hormones estrogen and progesterone, and the pregnancy hormone prolactin, trigger maternal instincts that include feeding and protecting her young. To do this, however, mom must be able to recognize her own young or at least be fairly sure the youngsters she's caring for are hers.

"Many species of rodents and some carnivores (including house cats) can't recognize their own offspring," writes Candace Savage in *Mother Nature* (Sierra Club Books, 1997). "But in nature, they seldom become confused because their young are kept in private dens or in secluded corners of the forest. Any infant that's in the right place is likely to have the right parentage. Mammals that mix and mingle, on the other hand, generally have a better sense of who's who. A prairie gopher will nurse any pup that is dropped down her nest hole; but as soon as the youngsters come out to play with their age-mates in the colony, she refuses to accept any except those she has raised. Unable to identify her youngsters when it was unnecessary, she quickly learns to recognize them by scent, sight, and voice when it becomes important for her to do so."

These sensory methods of identification have their drawbacks, though. Predators, like parents, can also use the youngsters' sounds and scents to target vulnerable newborn animals. But natural selection has been at work to counter this. Elk cows, for example, give birth to calves with so little scent that only their mothers' maternally fine-tuned noses can detect and identify them as their own. Coyotes, bears, and mountain lions often walk past the bedded calves without scenting their presence.

Clearly, if mom is going to put a lot of time and energy into raising kids, she wants to make sure those kids are her own, since parenting style is all about perpetuating her own genetic imprint. But parents include fathers. And fathers, in the natural world at least, have a dubious record of involvement in child rearing.

There are some reasons for that. First, dad, like mom, seems to want to know that the kids are really his before he's willing to invest a lot of his time helping to raise them. Second, dad doesn't do much parenting unless he's really able to make a meaningful contribution.

White-tailed deer, like other ungulates, give birth to precocial young—newborns that are able to hear, see, and run soon after they are born.

Elk calves are born with so little scent that predators often pass closely without detecting their presence.

"Paternal certainty" is high, for example, in fish species where the male fertilizes the eggs after the female has deposited them. So, the male is inclined to stay around and guard the nest. "External fertilization requires so much synchronization in the mating behavior of males and females," writes Susan Allport, "that males can usually be sure they are not attempting to fertilize, and care for, eggs that have already been fertilized by another. Because fish eggs are shed before fish sperm...males are the partners last in possession of the fertilized eggs. They are the partners left holding the bag, so to speak."

Warm-blooded animals, on the other hand, fertilize their eggs internally. The mom knows she is carrying her kids, but dad can't be sure they are his. So, dads help with child care in less than five percent of mammal species.

This lack of paternal involvement is not all due to paternal uncertainty. Female mammals are born with well-designed equipment for feeding their young; males are not. In the rare instances where mammalian fathers do pitch in, they are usually able to put some food on the table. A male wolf, for instance, can kill a moose or elk that his kids can feed on for days. And beaver dads help build lodges where their children live, eating bark and twigs both parents have stockpiled.

However, most herbivore fathers — including moose, elk, and deer—can't gather and store the grasses and twigs their kids will start to eat after being weaned from their mother's milk. Call these dads deadbeats, if you must, but they just don't have the ability to help out once they've mated with the females.

Bird fathers, like this red-necked grebe, are just as capable as mothers when it comes to feeding their young.

Bird fathers are a different story. They may be plagued with paternal doubt, but they are just as capable as the females when it comes to feeding the peeping beaks that fill the nest. Because of that ability to help, and the fact that most females couldn't keep up with the high demands of feeding chores on their own, 90 percent of bird fathers share in parenting duties after the eggs have hatched.

Another variable influencing parenting style is the relative stage of development of the young when they are born. Precocial young—newborns that are able to hear, see, and run soon after they are born—are common among prey animals like ungulates. Deer, elk, moose, and pronghorn, for example, must be able to fend for themselves within hours of birth because their parents are generally unable to come to their defense. Altricial young—those that are not well developed—are more common among predators like wolves, bears, and mountain lions, because their parents are able to defend their sightless, uncoordinated newborns.

"In precocial animals," writes Susan Allport, "the brain is more fully developed at birth or hatching. Pathways are set; behavior patterns are already formed. Learning, the only means by which the experience of one individual can be transmitted to a new generation, does not play as much of a role in their lives. The brains of altricial young, on the other hand, finish developing in the rich experiential

Black bear cubs, born tiny and helpless in the den in midwinter, emerge in the spring with hair, teeth, and claws. Although they can eat plants and insects, they continue to nurse for several weeks.

context of the real world (rather than the dull, predictable context of the uterus or egg)."

Altricial kids, therefore, are going to require a parenting style that involves a lot more attention then precocial kids. Beavers, for instance, remain with their parents for almost two years and even help care for their newborn siblings during the start of their second year at home. By the end of the second year, however, with the prospect of three litters crammed into the family lodge, the parents send the 2-year-olds off to fend for themselves. Wolf parents may let their kids stay with the pack for years, as long as they help provide food and care for younger brothers and sisters.

Normally, during this prolonged parenting period typical with altricial young, the adults do not actively teach their offspring. Instead, the kids learn from their parents' example, following them to productive feeding grounds, observing danger signals, and noting good escape routes.

Play also seems to be a learning aid in many mammalian species. And it may be an instance where active teaching does take place. The cow elk that seems to be playing with her calf in the meadow, sprinting off and wheeling about, may be passing on some important tactics for predator evasion. The mountain lion mom who lets her cubs complete the coup de grace to prey she has injured but not killed may be giving her kids a chance to hone their kitchen skills in a controlled setting where she can still step in and help out if the kids totally bungle the lesson. And wolf parents that rough-house with their offspring may be using their sniffing, biting, snarling, and cowering to teach offspring about social standing within the pack.

"Like wolves," writes Candace Savage, "many grazing animals—including sheep, deer, elk and bison—live in permanent, multigenerational social groupings. But whereas wolf packs include males and females, grazing animals practice a rigid segregation of the sexes. Young males typically wander off soon after they mature and travel alone or in loose, all-male aggregations. Daughters, on the other hand, generally remain in their natal groups, together with their mothers and sisters. Here, family ties can last for years, sometimes even for lifetimes."

Before we get feeling too warm and woolly in our view of natural parenting, however, we need to remember that any animal's parenting style is dependent upon, and changes with, shifts in the costs and benefits of parental care. "To a parent in poor health, or a parent caught in a drought," writes Susan Allport, "the costs of parental care soar; the benefits, the probability of producing offspring that will survive and reproduce, fall. These parents should be most likely to abandon their offspring, and field study after field study show that is indeed the case."

But natural selection takes the practice of "cutting losses" even further. Studies show, for example, that a pregnant lynx that enters spring in poor shape because of a harsh winter may abort her fetuses rather than devote her depleted resources to offspring that are unlikely to survive.

A mouse that gives birth to more pups than she can care for kills the runts and eats them or feeds them to her stronger offspring. A brown bear sow that loses one of her cubs may abandon or kill the second. This act of infanticide allows her to immediately mate and produce two more cubs instead of nursing one cub for two years before being able to have additional offspring. If this seems a bit extreme, remember that numbers—how many offspring an animal can successfully raise in a lifetime—are at the root of behavior, even strange behavior, when it comes to natural parenting. ■

THORNBRUGH NOTCHES Sixth Waterfowl Stamp Win

by Tom Palmer

It's the doggonedest duck stamp you'll ever see.

"Who knows where the ideas come from," says Victor artist Joe Thornbrugh, now a six-time winner of Montana's Migratory Bird Stamp contest. "I like to try different things from time to time. As a wildlife artist who has been at this for quite a long time, I can tell you that everything we do has been done a hundred times before."

Not this one. "Caught in the Act," Thornbrugh's last-minute entry into the 2000 Montana Migratory Bird Stamp competition, is to duck stamps what "Nothing but a Hound Dog" is to crooning. It's a refreshing, energetic, guaranteed original that's bound to make you smile.

Through that soft, it's-a-dog's-world smirk, you can almost smell the puppy breath.

"I live with two chocolate Labs, and that's pretty much how they look at you when you catch them doing something they shouldn't be doing, especially when they're real young," Thornbrugh says. "One of my dogs was real mischievous as a puppy—chewing on everything—and for this painting I just started to think about what it would be like if someone went duck hunting and took along a new puppy. It kind of fit the bill for me, even though I had never painted a puppy before, because I know that as soon as you'd start to put out the decoys, that puppy would be back there in the duck blind getting into stuff."

Note the gnawed head of the mallard decoy, the paw-grasped duck call, and the pup's skyward, pale-eyed glance that's not quite a plea for forgiveness.

Thornbrugh's "Caught in the Act" will be reproduced as this year's Migratory Bird Stamp. He also won the stamp's inaugural competition in 1986, as well as the 1990, 1991, 1997, and 1998 competitions.

Jim Borgreen, an art teacher from Lewistown, and winner of the 1996 competition, placed second. Alice Martin of Kalispell, who has entered every Montana waterfowl competition, placed third. It was the first time Martin achieved the distinction of having her work judged among the top three entries. Thornbrugh, a full-time artist, has honed a constant, even compulsive manner of observation of nature, wildlife, and particularly waterfowl and other birds. "I'll be driving down the road and I'll be looking at birds. It can get kind of dangerous," he says in a way that is only half in jest.

Thornbrugh's works have been shown at the Los Angeles County Museum of Natural History; the National Wildlife Federation headquarters in Vienna, Virginia; the Museum of Native American Cultures in Spokane; the Leigh Yawkey Woodson Art Museum in Wausau, Wisconsin; and the Charles and Emma Frye Museum in Seattle. His painting of a ring-necked pheasant has been exhibited in the National Collection of Fine Arts at the Smithsonian Institution in Washington, D.C. His work has also earned a special showing at the Montana Governor's Mansion in Helena. In addition, his paintings illustrate the popular guides to identification of owls and birds of prey that originally appeared in *Montana Outdoors*.

The $5 Montana Migratory Bird Stamp has helped fund waterfowl habitat improvement projects for 17 years. Since the first stamp was sold in 1986, about $2 million has been plowed back into wetland enhancement in Montana. Additional revenue is derived from sale of limited edition prints that range in price from about $140 for a signed print and stamp to about $560 for an "executive edition" numbered, signed, and remarqued print with a stamp and gold-plated medallion embossed with the winning painting. Prints of the 2000 Montana Migratory Bird Stamp can be ordered through select art galleries in Montana.

With "Caught in the Act," Thornbrugh says he just wanted to tell a story and the story thankfully came in at the wire. "I finished the painting only a couple of hours before the entries were due in Helena," he says. With the paint barely dry, Thornbrugh and his wife, Judy, loaded up the car, drove 150 miles to Helena through the season's first snowstorm, and arrived at FWP headquarters just under the 5:00 p.m. deadline. "We almost didn't make it," he recalls, still amused remembering that lucky dog in the back seat. ■

2ND PLACE—JIM BORGREEN

3RD PLACE—ALICE MARTIN

Two Faces of Wildlife

Most Montanans enjoy wildlife, but solving problems takes tolerance and cooperation.

by Alan Charles

The phone rings late, long after I've gone to sleep. I know it's nearly midnight as I answer the call. I don't recognize the voice, but I can tell the caller is angry, frustrated, and eager to be heard.

"*Your* deer are eating *my* hay," the voice booms in my ear. "I want something done about it, and I want it done *now*."

Obviously, this isn't a time for me to start explaining the relationship between public ownership of wildlife, Montana Fish, Wildlife & Parks' role as trustee, and the laws regarding game damage. This is a time to listen, to try to understand the nature of the problem, and then try to direct the landowner toward the local FWP staff who can help find solutions to the problem.

Whether it's deer in grainfields, elk in haystacks, bears in beeyards, or beavers in irrigation ditches, the issues involving wildlife damage are often emotional and sometimes difficult to resolve. Yet, FWP has been involved in providing game damage assistance to private landowners since the 1940s.

In 1996, FWP initiated an independent review of its Game Damage Program, seeking input as to what might make the program more effective. To accomplish this task, we contracted with two natural resource consulting firms, Beck Consulting and the Talbott Group. The consultants reviewed current statutes, policy, and direction, gathered information from other western states, conducted field reviews in all FWP administrative regions, and issued a final report (to receive a copy, write: Alan Charles, FWP,

DALE C. SPARTAS

game damage

P.O. Box 200701, Helena, MT 59620).

The review found that Montana's Game Damage Program had both strengths and areas for improvement. Among the strengths cited were:

- FWP staff's knowledge of the statutes and laws governing the program and adherence to program policies.
- FWP's willingness to respond quickly when complaints are received.
- Coordinated efforts by FWP and other private and governmental entities.
- Collaboration with landowners in solving game damage problems.

In addressing improvements, the review suggested that FWP:

- Take a more proactive approach to game damage problems, rather than waiting for complaints.
- Adopt a clearer program policy statement.
- Allocate program funding on a region-by-region basis.
- Strive to improve internal communications between field wardens and biologists.
- Develop a standardized, computerized database.
- Institute a formal method for tracking complaints, actions taken, and effectiveness.

Where are we now, two years after the program review, and where are we headed? Last September, a Game Damage Program Policy/Guidelines document was finalized, culminating staff efforts to incorporate

To be eligible for game damage assistance, landowners must allow public hunting during established seasons for the species doing the damage.

GEORGE ROBBINS

recommendations from the independent review, standardize policy throughout all FWP regions, and clearly articulate the actions to be taken under various wildlife damage situations.

Based on recommendations in the Beck/Talbott report, approximately 70 percent of this year's Game Damage Program budget was allocated to the FWP administrative regions. Separate project numbers were established to track expenditures related to traditional game damage, bear and lion action, and activities related to "nuisance" wildlife.

An ongoing review is being conducted to improve effectiveness of forms used to document game damage complaints and action, and preliminary work is underway to develop a standardized database. Informational pamphlets explaining the Game Damage Program are being developed, and research is being done to determine the most effective materials and actions for various game damage situations.

What is the legal basis for Montana's Game Damage Program? In 1947, the legislature passed a law requiring the Fish and Game Commission to investigate complaints from landowners. This statute gave the department authority to open special hunting seasons to alleviate game damage problems, to destroy animals causing damage, or to allow landowners to destroy specific numbers of animals.

Two court cases have defined both the state's responsibility regarding game damage and individual landowners' responsibility to tolerate a certain level of game damage. One case, the State of Montana v. Rathbone (1940), involved a rancher claiming he'd killed an elk out of season in defense of his property. The State Supreme Court held that while killing an animal out of season may be justified to protect property, mere trespass of an animal was not sufficient justification, and that other remedies were available and should have been exhausted first. Further, the court wrote, "One who acquires property in Montana does so with notice and knowledge of the presence of wild game and presumably is cognizant of its natural habits....Accordingly, a property owner in this state must recognize the fact that there may be some injury to property or inconvenience from wild game for which there is no recourse."

A second court case, State of Montana v. Sackman (1968), involved a landowner who sought a court order compelling the department to allow him to shoot as many elk as he deemed necessary to protect his property. While a district court granted the order, the Montana Supreme Court overturned the district court decision, noting the department had repeatedly tried to assist Sackman with his damage problem.

The original "game damage" statute was recodified in 1968, and amended again in 1989 to include an eligibility requirement—i.e., to receive game damage assistance, a landowner must allow public hunting during established hunting seasons or not significantly reduce public hunting through imposed restrictions. This statute also requires the department to respond within 48 hours of a complaint by investigating and arranging to study the situation.

The current Game Damage Program Policy/Guidelines statement (dated September 1999) begins as follows: "The game damage program is a collaborative approach designed as an equitable, consistent, and cost-effective way to minimize property damage caused by game animals. Emphasis is on public hunting during the general hunting season as the

primary method to accomplish long-term solutions, recognizing that game management is a responsibility shared by landowners, hunters, and Montana Fish, Wildlife & Parks."

As noted above, eligibility for game damage assistance requires that landowners allow public hunting. But just what does that mean? In the absence of a legal definition, the current guidelines statement defines the phrase "allows public hunting" as "...allows hunting without charge or consideration and without restrictions (see below) to members of the general public during established seasons. For the purposes of game damage assistance eligibility, hunting must be allowed for the species for which the complaint has been made."

The phrase "does not significantly reduce public hunting through imposed restrictions" is defined as "...does not impose restrictions which prevent general public hunter harvest of the species for which the complaint has been made. Such restrictions may include: (1) species of animals hunters are allowed to hunt; (2) portion of land open to hunting; (3) time period during which land is open to hunting; (4) fees charged; or (5) other restrictions which render harvestable animals inaccessible."

Producers reporting damage who do not allow hunting for legitimate safety reasons or who do not have the animals on their property during the general season may still be eligible for assistance based on review by a field warden, biologist, or program manager. FWP policy requires that the decision to assist and the circumstances be noted on the Game Damage Assistance Form.

The requirement that public hunting be allowed as a prerequisite for obtaining game damage assistance rests on the premise that hunting and fishing license fees fund Montana Fish, Wildlife & Parks, and in order for these license dollars to fund landowner game damage assistance, public hunting must be available.

A quick survey of neighboring states reveals that in most cases, they too rely on general definitions such as "reasonable public hunting access" for programs where landowners obtain department assistance or incentives. South Dakota defines reasonable public access as "no commercial hunting" on the property in question. North Dakota provides game damage assistance as long as there is no fee hunting; however, the land may be posted and hunting may or may not be allowed. Wyoming employs the term "reasonable public hunting" and does a case-by-case assessment of whether sufficient hunting access is allowed. Idaho provides assistance to landowners without any access requirement, but requires "reasonable public hunting access" for monetary compensation.

In fact, 22 states actually compensate landowners for certain types of damage either to crops or property caused by wildlife. To quote from the Beck/Talbott report: "Most states rely on the body of state and federal court decisions which exempt state and federal governments from liability for damages caused by wildlife under the sovereign immunity clause of the U.S. Constitution. Compensation can only occur if a state, through its legislative body, chooses to waive this immunity in favor of alternative remedies (Tan 1990). A number of states have enacted laws to compensate landowners for damage caused by wildlife....The success of these programs is disputed...[since] claims in Wyoming, Colorado, Utah, and Idaho represent only a small fraction of the total cost of investigation, administration, and arbitration of these claims. In general, states who have implemented compensation programs to increase landowner tolerance have not been successful."

In Montana, the thrust of the Game Damage Program is to assist landowners in reducing wildlife impacts to tolerable

GARY LIPPART

When habitat is lost to urban sprawl, wild animals—like these mule deer—seek new feeding opportunities.

levels. To a large degree, landowner tolerance for wildlife is directly related to economics. When markets are depressed and profit margins thin, tolerance is naturally low. However, when profit margins rise or when crop supplies exceed demand, tolerant attitudes are easier to find.

FWP relies on public hunting during established seasons as its primary means of managing game animal populations. But developing management objectives that meet both hunter demands and landowner tolerance levels is sometimes very difficult. FWP commissioners are often faced with hunters coming to commission meetings demanding more harvestable elk, deer, or antelope, while landowners in the same areas complain about having to deal with too many elk, deer, or antelope. Quite often, the only people commenting at commission meetings are hunters, with landowners voicing comments only after the seasons and bag limits are set and hunting season is over.

Even when mutually acceptable seasons and bag limits are established, harvest objectives may not be achieved for a number of reasons. Access restrictions imposed by one landowner might circumvent management objectives for an entire hunting district, especially when local deer and elk herds key in on the "sanctuary" and remain unavailable to hunters. Weather often plays a key role in determining game animal harvest; a mild autumn may yield a low elk harvest, even though herd numbers are high and objectives call for a large harvest. Another problem commonly encountered is hunters' reluctance to harvest does or cows, even though the necessary permits are available.

While managing wildlife populations through public hunting generally achieves management objectives, in any given year game damage situations will occur on a localized basis. Within the Game Damage Program, the department has a variety of options for dealing with game damage complaints. These options include:

- Repellents such as blood meal.
- Dispersal through use of noise-making devices or hazing.
- Physical barriers such as snow fence, mesh wire, stock panels, electric fence, or permanent stackyard fencing to protect harvested, stored crops (fence barriers are not provided for protection of unharvested crops).
- Damage hunts during the periods of August 15 to the opening of fall hunting seasons and from the close of fall hunting seasons through February 15.
- Kill permits issued to landowners.

Generally, game damage abatement actions are taken on a progressive scale of intensity, from the least harmful to wildlife causing the damage up to and including lethal methods such as damage hunts and kill permits. Often, a game damage situation will be temporary and isolated, as when a particular weather pattern or forage situation brings animals into conflict with a landowner's harvest or grazing schedule. In other instances a chronic problem may exist due to hunter access restrictions, wildlife population levels, or farm and ranch management practices that perpetuate the game damage situation.

These are the challenges we face as we grapple with wildlife damage problems. They are very real problems, and they will not go away. The rancher who sets aside a pasture either to rest or to use later in the year, only to see it heavily grazed by elk during the rest period, is naturally frustrated. Whether it's a herd of whitetails congregated in an alfalfa field just prior to seed harvest, a gaggle of Canada

Due to successful wildlife restoration efforts, some big game populations are at their highest levels in 75 years. When conflicts arise, landowners, hunters, and biologists must work together to find solutions.

geese marching down exposed rows of fledgling winter wheat, urban mule deer munching ornamental trees on trophy lawns, black bears and mountain lions traipsing through ranchette backyards, or turkeys feasting on oat hay stackyards, the Game Damage Program is likely to be called upon for help. Such problems require all of us—landowners, hunters, and FWP staff—to work together to do what we can to minimize the impacts.

Sometimes the solution may lie in convincing the landowner to modify his operation. Planting barley in an isolated corner of the ranch up against heavy timber may be creating a problem that can't be solved. It might ultimately be cheaper to buy grain than to fight the elk, or to seek a better place to farm the grain. Altering grazing schedules might help alleviate a chronic game damage problem, either leaving grass behind to lure wildlife away from other pastures, or grazing livestock in a different pattern to capitalize on natural wildlife movement patterns.

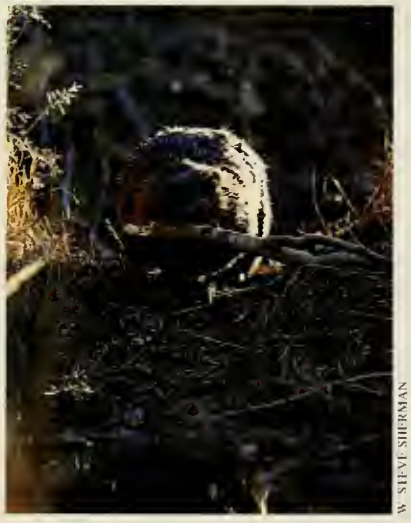
Hunters need to recognize that they play an important part in game damage scenarios. FWP issues cow permits or doe permits to achieve desired harvest objectives, and regional FWP offices can usually help direct hunters to areas where those permits can best be put to use. While harvesting a big buck or bull might better fit a hunter's dreams, harvesting a doe or cow may better manage the herd; as the old saying goes, horns don't make much of a stew.

Some of the greatest success stories in Montana's wildlife management history are those rooted in cooperative efforts by hunters, landowners, and FWP to deal with the wildlife impacts on private land. The Devil's Kitchen Working Group, the Breaks Elk Working Group, and the Bull Mountains Elk Advisory Group are examples of how Montana's citizens and agency staff can work together to resolve difficult game damage issues. Other examples include the cooperative grazing strategies implemented at places like Wall Creek Wildlife Management Area near Ennis and Fleecer Mountain Wildlife Management Area near Glen.

Often what works best is simply neighbor talking to neighbor, be it the local FWP biologist visiting with a landowner about wildlife habits and farming practices, a rancher talking with a new neighbor about managing hunters and how access restrictions on one place might impact wildlife activities on a neighboring place, or ranchers and hunters attending a local FWP commission meeting and expressing their views.

In the long run, the changing dynamics of Montana land ownership, farm and ranch economies, the variables affecting wildlife management strategies, and a multitude of other factors ensure that game damage situations will remain a part of Montana's wildlife landscape. Under the Game Damage Program, we will continue to provide assistance wherever possible and incorporate landowner concerns into FWP's wildlife management strategies. ■

DONALD M. JONES



W. STEVE SHERMAN

While wildlife damage historically has been a rural phenomenon, today more and more problems involve cities and suburbs.

MOVING

From Native Americans to Lewis and Clark and forward to modern times, trappers have enjoyed a long tradition in Montana. Rules governing trapping have become more complex, but continued improvement is needed to keep up with Montana's changing landscape.

And in our state, grassroots efforts usually yield the best results. Such was the case with the citizen-based Trapping Advisory Committee, which recently helped reform Montana's trapping regulations.

Montana Fish, Wildlife & Parks Director Patrick Graham's charge to the committee was clear: come up with ways to ensure that trapping becomes more compatible with other outdoor uses. "Trapping has a long heritage in Montana and is important to many people," he said. "However, the trapper's realm is no longer far removed from other pursuits such as hiking, skiing, or upland bird hunting."

Specifically, the goals of the committee were to identify potential conflicts between trapping and other recreational activities, examine incidental or nontarget catches of pets and wildlife, and to design

G FORWARD

by JOHN FRALEY

DONALD M. JONES

DONALD M. JONES

New regulations proposed by a citizen-based Trapping Advisory Committee promise to make trapping more compatible with other outdoor activities.

ways to eliminate or reduce these conflicts. The committee could suggest increased education or regulation changes to meet these goals.

The committee included 10 citizen members and four agency staff, assisted by a neutral facilitator (see sidebar). Members were chosen based on their ability to represent interests specific to the issue and their commitment to working with others in a problem-solving effort. They hailed from across the state and included trappers, nontrappers, and those with concerns about trapping.

One of the committee members, Peggy Shunick, got involved because she wanted to learn more about trapping issues. Shunick has never trapped furbearers but she has maintained an open mind about it. As a dog trainer and sheep rancher, Shunick had a couple of concerns. First, she wanted assurance that her dogs would not be harmed by traps when out in the field. And as a sheep rancher, she acknowledged that predator trapping or removal of problem animals is necessary to protect livestock. Once, a

black bear killed eight sheep at her place near Evaro.

"The biggest thing I trapped in the past was a packrat," says Shunick. "I never really opposed trapping, especially of nuisance animals. I grew up in Illinois; you can't have the raccoons eating all the corn. It's a difficult issue, but we have to be practical." When the committee meetings began, Shunick expected a lot of conflicts because of the broad interests represented. But she was pleasantly surprised.

"We really came together well," she said. "Some of the members represented groups and had to follow the policy of their particular organization. Others, like me, had more of a personal interest."

Shunick says that at first committee members began suggesting solutions. Things quickly got better when they started defining problems, drafting statements of agreement, and developing themes. After that, solutions could be formulated to address the specific issue. Shunick is an expert in wildlife/human issues. She holds a Master's Degree in Animals and Public Policy, and is in the doctoral program at the University of Montana. She says this path is typical when committees address conflicts about natural resources.

"We determined that most conflict between trapping and other uses occurs where people spend a lot of time," she says. "So we focused on roads, campgrounds, and residential areas. We looked at simple ways to remove the potential for conflict."

Shunick says that the best solutions included "setbacks"—areas where no traps could be placed—and trap equipment changes that would reduce incidental take of nontarget wildlife and domestic pets. These recommendations included a 30-foot setback from roads, and a restricted entry on sets using body-gripping traps, known as conibears. Restricted entry sets allow target animals access while keeping larger animals, such as dogs, from reaching the bait.

In preparing for her work on the committee, Shunick attended a Trapper Education Course sponsored by the Montana Trapper's Association and FWP. She believes the course should be mandatory for all first-time trappers. This recommendation received unanimous support by the committee, but legislation will be required to make it a reality.

JUDITH E. STROM

A dog trainer and sheep rancher, Peggy Shunick wanted to be sure her dogs wouldn't be harmed by traps when out in the field.

The committee held public meetings across the state to discuss the recommendations. Shunick attended the meeting in Kalispell and helped facilitate the meeting in Missoula. The committee also received written messages from a wide range of people. The comments surprised Shunick.

"The trappers, especially, surprised me," she says. "They are compassionate and articulate, and they submitted hand-written letters with good logic. I didn't see the same kind of effort from the people opposed to trapping. Their arguments were based more on emotion, and just didn't fit together. The trappers seemed more mature and well-grounded."

Another committee member, Melissa Tuemmler of Ulm, has been a trapper for decades. She is an officer of the Montana Trapper's Association and has been a volunteer trapper education instructor. As an avid cat owner, she shares the concern of pet owners. The committee looked to her for the wording used in many of its recommendations. "At about the mid-point in the process," she says, "I sat down with my husband, who is also a trapper, and we worked out specific language for many of the issues."

In a crucial step, Tuemmler worked with a lawyer who is a Montana Trapper's Association member to craft definitions of water set, ground set, and other sets. These careful definitions set the stage for interpreting the rest of the proposed rules.

The committee took Tuemmler's suggestions along with others and put together a comprehensive set of draft regulations. Like Shunick, Tuemmler felt the committee functioned well. "I believe everyone came in with an open mind with a willingness to listen and to work out compromises," she says. "I think that's why we were able to come up with commonsense ways to address each issue."

After the public input process, the regulations were refined once again. The committee's final recommendations provided the Montana Fish, Wildlife & Parks Commission with a blueprint for reducing conflicts between trapping and other recreational uses that could serve as a model for other western states. Showing confi-

Melissa Tuemmler (left) is a long-time trapper and an officer in the Montana Trapper's Association, while Dave Pauli (above) is the Northern Rockies Regional Director for the Humane Society of the United States. Both Tuemmler and Pauli felt the advisory committee process was good for all parties with a stake in the trapping issue.

dence in the committee's work, the FWP Commission adopted many of the provisions (see sidebar).

Perhaps the most impressive steps were suggestions for reducing capture of pets and nontarget wildlife. These included setbacks and trap set restrictions, landowner notification, as well as seven separate provisions for increasing educational efforts on trapping. Taken together, the committee's plan probably represents the most comprehensive set of rules in the nation directed at reducing incidental capture of pets and wildlife.

Tuemmler believes that all groups benefited from the process. "People could see that we worked hard to make sure nontarget animals were protected," she says. "People I've talked to feel good about the additional protection for their pets. I believe we've given sound assurance to the public that trappers were willing to make reasonable changes."

Although the FWP Commission didn't adopt the committee's recommendations for offset jaws on foothold traps and breakaway devices on snares, Tuemmler feels these too would help reduce the problem with nontarget wildlife.

Tuemmler says her only disappointment was the campaign some people conducted to bring out-of-state comments into the FWP Commission process. In fact, the majority of people commenting negatively about trapping were from other states. Comments came from at least two dozen states, ranging from California to New York to Hawaii to Florida. Most were "cookie cutter," reflecting a national Internet campaign orchestrated by animal rights groups. Four major animal rights groups also sent detailed comments. In an unprecedented move, an official of a California-based group traveled to Montana to testify in person to the FWP Commission.

Going into the process, Tuemmler believed that one committee member, Dave Pauli of Billings, would be difficult to work with because of his ties to a national animal rights group. Working with Pauli proved to be her biggest surprise in the process. "He should be highly commended," she says. "He brought a lot of knowledge to the proceedings and didn't seem to let his animal-rights ties cloud his objectivity."

Pauli brought a complex background to the committee. A past-president of the Wisconsin Trapper's Association, Pauli's career has gone from wildlife damage control to municipal animal control to his current position as the Northern Rockies Regional Director of the Humane Society of the United States (HSUS), which is the largest anti-trapping organization in the nation. HSUS has actively campaigned to stop fur trapping, and its published positions strongly oppose hunting. Yet even with this tie, Pauli maintains a program of humane trapping and translocation instruction in over a dozen states and countries.

When asked about his dual role, Pauli admits to having internal conflicts. But he explains that he can be a reality check both to animal rights advocates and to trappers. "I spend time with both sides," he says. "I think all activities can be pursued, but groups should self-regulate and anticipate problems." On the issue of trapping, Pauli says, "I'm not an abolitionist, I'm a reformist."

Pauli believes that the advisory committee process was good for trappers and for those with concerns about trapping because people heard both sides of the issue "up-front and personal." He says that trappers learned that a number of people have negative feelings about trapping, and on the other hand, nontrappers learned that trappers are just neighbors, not stereotypes.

"I thought we got through a lot of tough issues," Pauli says, "and we

New Regulations

GEORGE ROBBINS

- **Set Definitions:** Water set, ground set, and other sets (including elevated sets) are now clearly defined. These definitions provide the basis for interpreting and enforcing trapping regulations.
- **Body-Gripping Ground Sets:** Ground sets on public land must have a trigger recessed at least 7 inches within a secure enclosure with openings no greater than 52 square inches each.
- **Ground Sets Along Public Roads:** Ground sets using 7-inch by 7-inch or larger body-gripping traps are prohibited within the right-of-way or, if there is no right-of-way, within 30 feet of the centerline of any publicly owned and maintained road.
- **Cross-Country Ski Trails:** Body-gripping ground sets must be set back 30 feet along designated trails.
- **Hiking Trails:** Body-gripping ground sets must be set back 30 feet from active, designated hiking trails.
- **Public Campgrounds:** Ground sets, including snares, are prohibited on public land within 1,000 feet of a designated public campground or fishing access site accessible by highway vehicle.
- **Occupied Dwellings:** Ground set traps including snares are prohibited within 1,000 feet of an occupied dwelling without written notification of the occupant.

In addition, the FWP Commission refined regulations concerning mandatory harvest data reporting and turning in of marten and bobcat skulls, use of exposed bait, and trapping on FWP Wildlife Management Areas.
Be sure to check the 1999-2000 furbearer regulations for exact wording on these new regulations.

Trapping Advisory Committee

Joe Axtell, *Bozeman*
Sean Boushie, *Columbia Falls*
Marty Connell, D.V.M., *Billings*
Kevin Feist, *Kalispell*
John Hughes, *Roundup*
Dave Pauli, *Billings*
Peggy Shunick, *Arlee*
Melissa Tuemmler, *Ulm*
Jay Parrott, *Great Falls*
Craig O'Gorman, *Broadus*

generated a good set of recommendations." After that, he says, the process was less positive. "I was disappointed in the final decision. I was optimistic that the FWP Commission would adopt our proposed rules as a package. Ultimately, I felt that a lot of the committee's recommendations fell by the wayside."

Pauli was also disappointed that the Trapping Advisory Committee did not adopt a mandatory trap check recommendation, perhaps one of the most controversial issues considered. The majority of the committee felt a mandatory check would not be necessary with the new regulations on education, trap setbacks, and the existing state law prohibiting waste of fur. "I believe a mandatory check provides a good tool for wardens to use with people who are abusing the recommended check," says Pauli. "I see it as something that can be selectively enforced in problem situations. I agree with the 'should be checked every 48 hours'; let's just make it 'must be checked' and move on."

Is trapping better off after the Trapping Advisory Committee process? You be the judge. We have more progressive trapping regulations, which go farther in protecting nontarget animals. We have a greater public awareness of trapping and other recreation issues, and perhaps a better sense of responsibility on the part of trappers and other users of the woods and trails. We have more rules for a traditional practice, but trapping has been a highly regulated activity anyway. And we have the sense that increased education is needed for everyone involved.

What does Melissa Tuemmler say to trappers who feel they were sold out in the process? "I think that, overall, we're ahead," she says. "No one wants to be overly regulated in what they do, including dog owners, skiers, hunters, or hikers. But the public needs to know that trappers are sincere and that we are concerned with ethics and responsibility. In the long run, I think everyone will feel good about what we've done." ■

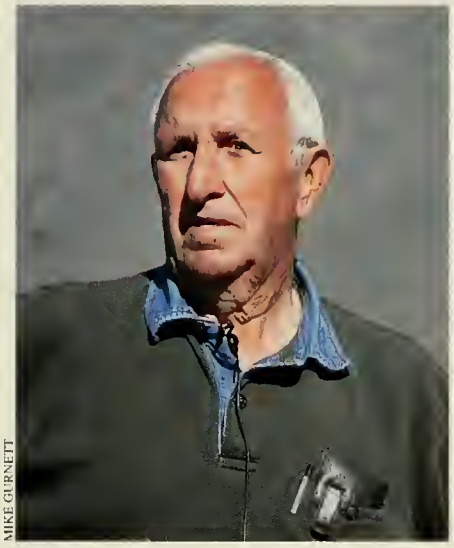
JIM MCLUCAS: BIG GAME TRAPPER EXTRAORDINAIRE

Records show that Jim McLucas relocated over 16,000 animals during a career with Montana Fish, Wildlife & Parks that spanned nearly four decades. When he was assigned the job of big game trapper back in 1947, Montana's wildlife populations were on the rebound from the market hunting days, but many historic habitats were not occupied.

Jim set about his job with a vengeance, developing and then testing techniques for capture. During those early years little information on trapping techniques was available, so Jim and his contemporaries had to do things from scratch. From designing crates for transporting mountain goats by raft down the South Fork of the Flathead to strapping goats to the sides of a packhorse, everything was new. To keep the goats from goring the horses, Jim slipped pieces of water hose over the horns.

The traps had to be designed and constructed, too. I remember Jim once told me it took him several tries at capturing elk in the wings of a corral trap to discover that newly cut boards along the wing had to be disguised with tree branches to prevent elk from blowing right through one side or the other before reaching the trap.

Also, he learned that third-cutting



MIKE GURNETT

Jim McLucas — 1921-1999

alfalfa was the key to bait-trapping bighorn sheep, and one had to wait until the coldest days to be effective. One cold and frosty day at the head of Gibson Lake, while trapping bighorn, Jim brought out some blasting caps. I'm not sure whether Jim or one of his team of men first thought of this, but at the time we all looked at Jim in amazement and asked what he had in mind. He said that instead of utilizing the customary trip wires, which sometimes malfunctioned or got tripped accidentally, we should insert the caps in the rope holding the door and set it off just when the last bighorn entered the trap. The first time we tried it we captured more than 50 sheep! From that time on, blasting caps were used almost exclusively under those circumstances.

Without Jim and some of his co-workers' ideas and inventions, today's knowledge about capture of animals would not be as complete. Jim's most notable skill, though, was his ability to get along and work effectively with so many people. He had an uncanny ability to bring out the best in everyone, and especially enjoyed children. As retired FWP employee Bob Greene noted, "Jim always took the time to explain to people what he was doing. Often times, this quality alone calmed an irate landowner or disgruntled sportsman."

Bob Cooney, Jim's supervisor during those early years, summed it up in this tribute: "I guess what I'm trying to say, Jim, is that you have been one of the very best in public relations this department has ever had."

Jim McLucas left us just prior to the millenium, leaving a big hole in the hearts of those who knew him. Wildlife professionals and all those who enjoy Montana's wildlife today owe him a big thanks. We miss you, Jim!—*Glenn Erickson, Wildlife Management Bureau Chief, Helena*

HOCKETT AND LOW RECOGNIZED FOR CONTRIBUTIONS TO WETLAND PROTECTION

Jeff Hockett and Jim Lowe were recently recognized by the Montana Fish, Wildlife & Parks Commission for more than five years of work on the Wetland Protection Advisory Council.

Since 1985, FWP has sold $5 migratory bird stamps to generate funds for protection, conservation, and development of wetlands in Montana. That year, the Montana Legislature also established the need for a wetland protection advisory group to guide how and where to spend the Migratory Bird Stamp funds. Under Hockett's and Lowe's leadership, more than $1.25 million has been used to fund waterfowl habitat improvement projects in Montana.

"FWP and Montana have benefited from over two terms of service from both Jeff and Jim," said FWP Director Pat Graham. "Both Jeff and Jim have donated hundreds of hours and personal resources to attend meetings, participate in project tours, and offer advice on selecting the best wetland developments."

Hockett, a farmer and rancher who lives on the family ranch southwest of Havre, shares a long family history of helping Montana in conserving land, water, and wildlife.

Lowe, from Billings, is a member of a Montana family that has played an integral part in waterfowl conservation and management for more than 30 years.

FWP Director Patrick J. Graham (right) shares a light-hearted moment with Wetland Protection Advisory Council honorees Jeff Hockett (left) and Jim Lowe (center).

Graham presented the men with "conservation edition" prints of Joe Thornbrugh's "Canada Geese Over the Pintlers," Montana's first waterfowl stamp.

Warm-Water Fish Stamp Now Required

As of March 1, 2000, a new $5 Warm-Water Fish Stamp will be needed to possess warm-water game fish caught on numerous lakes, reservoirs, and other waters in central and eastern Montana. Revenue from the stamp, established by the 1999 Montana Legislature, will help fund a new multi-species hatchery planned near Fort Peck Dam.

The new stamp applies to all resident and nonresident anglers (except youths under age 15, seniors, and disabled anglers) if they intend to keep the warm-water fish they catch on designated waters in which FWP plants warm-water fish. For a complete listing of these waters, consult the 2000 Montana Fishing Regulations.

Youth Trapper Camp Slated for June

The Montana Trapper's Association, in cooperation with Montana 4-H and FWP, will hold a Youth Trapper Camp at Beaver Creek Park south of Havre in the Bear Paw Mountains on June 23-25. Classes and demonstrations will be geared to youths 8 to 18 years of age. Subjects will include trapping, snaring, ethics, health and safety, fur handling, and conservation.

FWP will offer a $20 scholarship to each of the first 60 campers who sign up. The full fee is $40 per camper, which covers the cost of all materials and six meals during the session. Registration is due by April 15 for those applying for scholarships, and May 15 for all others. Interested adults may apply as chaperones, cook's helpers, etc. for this family-oriented camp.

For more information and application forms, contact Jim or Fran Buell, P.O. Box 133, Gildford MT 59525; phone 406-376-3178; e-mail: 7mbuell@ttc-cmc.net.

Youth Discounts Available

As of March 1, a new combination sports license for Montanans 12 to 17 years of age is available for $25—about 50 percent of the fee paid for a similar license in previous years. The youth combination sports license allows fishing and hunting for upland game birds, deer, and elk. Resident youths 15 to 17 also have the option to purchase a fishing license for $6.50 and a resident upland game bird license for $3—both about 50 percent less than in previous years.

Resident youths 12 to 14 years of age may fish and hunt upland game and migratory game birds during the regular hunting season with only a conservation license, and resident youths under age 12 may fish without a license, as before. The new fees will be in effect through February of 2002.

Outdoor Skills Workshops Set for Summer

Montana Fish, Wildlife & Parks is sponsoring two "Becoming an Outdoors-Woman" (BOW) workshops this summer. The first will run from July 31 through August 2 and the second from August 4 to August 6. These popular workshops provide women an opportunity to learn outdoor skills such as fishing, fly-tying, archery, shotgun and rifle shooting, canoeing, map and compass reading, plant identification, and Dutch-oven cooking.

The workshops, which are geared toward beginners and stress hands-on learning experiences, will be held at the Lubrecht Forest camp near Missoula. The fee is approximately $185, including meals and lodging.

To receive more information, provide your name and mailing address to BOW Coordinator Liz Lodman at FWP-BOW, P.O. Box 200701, Helena, MT 59620 (406-444-2615); or e-mail llodman@state.mt.us. Registration information will be mailed in May.

Smith River WALLY JESTER

Whirling Disease Detected in Smith River

FWP fisheries biologists learned recently that five of 86 young rainbow trout placed in test cages in the Smith River for a brief period last spring developed low-level whirling disease infections. While unwelcome, the discovery was not unexpected.

"We're not surprised to find it in the Smith," said Steve Leathe, regional fisheries manager for FWP in Great Falls. "We expected it would be just a matter of time before it showed up there, since it's already in one of its major tributaries. The irony for us is that the Smith River wild trout populations appear to be on the increase." The disease has not been verified yet in the river's wild fish.

Whirling disease affects the cartilage of young trout and can kill them. It was first discovered in Montana in 1994.

Whirling disease was previously found in Hound Creek, a tributary of the Smith, and in the Missouri River, which the Smith joins near the town of Ulm, south of Great Falls. The Hound Creek finding came in 1996 in wild brown trout and was confirmed last year in caged rainbow trout. So far, about 350 Montana waters have been tested, and infected fish have been found in 83. Whirling disease can occur in any water where the parasite that causes the disease completes its life history.

For 10 days last spring, young-of-the-year rainbow trout a few inches long were placed in cages in the Smith River at Camp Baker and 59 miles downstream at Eden Bridge. Then the fish were taken to a control-test location where they lived in tanks supplied with parasite-free water for three months to allow whirling disease—if present—a chance to develop. Finally, the fish were sent for analysis to a laboratory in Washington.

At Camp Baker, the popular launch site for the river's 60-mile float, whirling disease was discovered in three of 36 fish. At Eden Bridge, the take-out spot, the disease developed in two of 50 fish.

Biologists say whirling disease may or may not harm fish populations in the long run. Only time and fisheries surveys will tell. In the short term, the disease should have no effect on the river's increasing trout populations.

"Provisional estimates from fall 1999 surveys suggest brown and rainbow trout populations [in the Smith] are at some of the highest levels ever seen," said George Liknes, FWP fisheries biologist. "Anglers should have great fishing over the next couple of years if the winter is mild and good water flows return to the Smith next spring and summer."—*Tom Palmer, Information Bureau Chief, Helena*

Readers Respond

We welcome your comments as well as letters to the editor. Please write us at: Readers Respond, Montana Outdoors, 930 West Custer Avenue, P.O. Box 200701, Helena, MT 59620-0701; fax 406-443-4619; e-mail montanaoutdoors@state.mt.us.

Centennial Valley Grayling are Lake-Dwellers

There was an article on grayling in the November/December 1999 issue of *Montana Outdoors* and, some time before—perhaps a year or more—there was another grayling article. Both of them talked about the status and restoration of the species. In neither article was there a mention of grayling in the creek above the Red Rock Lakes National Wildlife Refuge. I believe the name of the area was the Centennial Valley. In the 1950s, Perry Nelson, a student at Montana State College in Bozeman, did his master's degree work on this population of grayling. It was a lovely, isolated area, and the population was healthy and stable. What is the status of grayling in this area today? I don't believe either article mentioned it.—*Charles K. Phenicie, Springfield, Virginia*

There are indeed Arctic grayling in the Centennial Valley in Upper Red Rock Lake. These grayling have an "adfluvial" life history, meaning they live in a lake and only move into a stream to spawn. This was probably the sole native, adfluvial population in Montana. Unfortunately, Upper and Lower Red Rock Lakes are in advanced stages of eutrophication, a natural process in which lakes become shallower, eventually converting to marshes and meadows. While Red Rock grayling are still hanging on, their habitat is shrinking. The recent articles in Montana Outdoors *addressed "fluvial," or river-dwelling grayling. Once widespread throughout the upper Missouri drainage, fluvial grayling became restricted to the Big Hole River drainage by the 1970s. Recent efforts have focused on protecting the remnant population and expanding the range of fluvial grayling.—Patrick A. Byorth, Fisheries Biologist, Bozeman*

Error or Deception?

It appears to me that the whitetail buck photo on page 6, and the cover photo of the November/December 1999 issue, are the same buck but one of the negatives was flip-flopped before printing. The antlers look identical but mirrored—different photos, same buck. Error or deception?—*R. Michael Sexton, Laurinburg, North Carolina*

Well, we'd prefer to call it neither. You're right that it's the same buck—sometimes we flop photos for design reasons—i.e., we usually prefer to have an animal on the cover looking "into" the magazine rather than off to the left.—Editor

Fines Not Stiff Enough in "Breaks" Case

I read Bruce Auchly's article on "Operation Breaks"—November/December 1999—with some concern. It stated that 16 people were cited for felonies and misdemeanors, along with some hefty fines, but didn't mention anything about taking their hunting equipment away. Did FWP confiscate this equipment? Also, the article mentioned these violators lost hunting and fishing privileges for various lengths of time. What concerns me is why didn't FWP take these privileges away for good!!! Along with the fact that it took so long to make arrests. Is it normal for FWP's Law Enforcement Division to take up to five years to make an arrest on people who enjoy breaking Montana's hunting and fishing laws? To me the fines weren't stiff enough and giving them their privileges back sounds ludicrous when they shouldn't have any at all. And the statement that Danny Flansburg (a violator) made that he would have never illegally guided anyone or poached until forced to by undercover game wardens!! What kind of a statement is that? Do our Montana game wardens go around and coerce Montanans into doing illegal acts? To me this article was upsetting. You see I'm an "old Montana boy" from way back, who in a few months will be retiring from the Army Reserve and moving back to Columbia Falls (hometown) and once again take up residence after being away for almost 25 years. I plan to use my rights as a Montanan to use the TIP-MONT program to the best of my ability and in hopes it won't take five years to see action. All and all, the articles in *Montana Outdoors* are outstanding and informative, and I plan to subscribe to it for some time to come. Keep up the excellent work.—*SSG Ted Gardner, Columbus, Ohio*

Montana statutes currently do not provide for confiscation of weapons or equipment in cases involving violation of wildlife codes. Statutes do provide for fines, restitution, and loss of hunting and fishing privileges, but the dollar level or length of time is up to the judge. The law enforcement officer, through the prosecutor, can make recommendations, but the judge makes the final decision. The "Operation Breaks" investigation extended for two years as every effort was made to identify and prosecute all the individuals involved; the arrests were made in spring of 1997. We chose not to run the article in Montana Outdoors *until all cases were finalized and the appeal process had expired. The TIP-MONT program is vital in helping us apprehend violaters. Please do use this service.—Kevin Clader, Criminal Investigations Section, Law Enforcement Division*

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Contributors

Auchly

"Forget the grizzly bear and prairie dog for a moment," says **Bruce Auchly**. "That new storm cloud appearing on Montana's endangered species horizon is the sage grouse." Despite the fact that Montana has a self-sustaining, huntable population of these big prairie birds, they have declined in other western states. The Biodiversity Legal Foundation and several other groups believe the sage grouse should be listed under the Endangered Species Act. The problem, says Auchly, is that if Montana gets dragged into listing because of a regionwide decline, we could lose our sage grouse hunting season. In "Weathering the Storm" (p. 7), he describes this emerging controversy and the efforts currently being made by FWP biologists to better document sage grouse status in Montana. Auchly is an information officer in FWP's Region 4 office in Great Falls.

The diverse parenting styles practiced by different types of wildlife may at first glance seem like a haphazard mix of hit-or-miss techniques. But according to **Sam Curtis**, there is a plan behind these highly variable ways of bringing up baby: it's called natural selection. In essence, the method that works best for each species is the one that results in the survival to maturity of the most offspring. Animals that can provide a lot of parental care have relatively few young, while those that cannot, like insects, fish, and reptiles, must produce large numbers of offspring to ensure that a few survive. To find out more about the methods employed by wild creatures to guarantee successive generations, turn to "Natural Parenting" on page 12. Curtis is a Bozeman-based free-lancer whose natural history articles appear often in *Montana Outdoors*.

Victor artist Joe Thornbrugh has two chocolate Labs, so it's not surprising he chose to paint one for his entry in the 2000 Montana Migratory Bird Stamp competition. This year's contest called for a puppy, and his memories of one in particular paid off in a painting entitled "Caught in the Act." "I just started to think about what it would be like if someone went duck hunting and took along a new puppy," says Thornbrugh. "I know that as soon as you'd start to put out the decoys, that puppy would be back there in the duck blind getting into stuff." FWP information bureau chief **Tom Palmer**, who wrote the article accompanying the top contest entries, describes the stamp program and how it contributes to waterfowl conservation in his article on page 18.

FWP has provided game damage assistance to private landowners since the 1940s, says **Alan Charles**. To help make its game damage program more effective, in 1996 FWP hired two consulting companies to review existing policies and draft a final report. While the program generally received good grades, the report singled out areas for improvement as well. As a result, new game damage policies and guidelines were finalized last September. To learn more about the program, how it operates, and criteria for landowner eligibility, turn to "Two Faces of Wildlife" beginning on page 20.

Charles

Charles is FWP's landowner/sportsman coordinator in Helena.

Fraley family

Trapping has a long history in Montana and is important to many people. But in recent years it has come into conflict with other recreational activities, such as hiking, skiing, and upland bird hunting. In his article "Moving Forward" (p. 26), **John Fraley** describes how a citizen-based Trapping Advisory Committee recently helped reform Montana's trapping regulations. "As a result of the committee's recommendations and subsequent actions by the FWP Commission, we have more progressive trapping regulations that go farther in protecting nontarget animals." Fraley is an FWP information officer based in Kalispell.

MO thanks the following artists and photographers for their contributions to this issue: **David Armier** and **Tom J. Ulrich**, West Glacier; **Mike Barlow**, Livingston; **Pete & Alice Bengeyfield** and **W. Steve Sherman**, Dillon; **Milo Burcham**, Missoula; **Sam M. Espeland**, Glasgow; **John R. Ford**, Land O' Lakes, WI; **Bret Hicken**, Spanish Fork, UT; **Wally Jester** and **John Lambing**, Helena; **Donald M. Jones**, Troy; **Gary Leppart**, Billings; **Richard Mousel**, Great Falls; **Kerry T. Nickou**, Browning; **George Robbins**, Powell, WY; **Dusan Smetana** and **Dale C. Spartas**, Bozeman; and **Judith E. Strom**, Whitehall. Thanks also to **Mike Gurnett** who works for the department in Helena.

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